

Notice of Allowability

Application No.

10/030,366

Applicant(s)

SINDERBY ET AL.

Examiner

Carl H. Layno
1/4/2005

Art Unit

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Paper No. 111004.
2. ☒ The allowed claim(s) is/are 1-28.
3. ☒ The drawings filed on 08 April 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. Acknowledgment is made of applicant's amendment which was received by the Office on November 10, 2004.

2. Claims 1-28 are active.

Specification

3. In view of the applicant's submission of an Abstract, the Examiner is withdrawing the 37 CFR 1.72(b) objection which was made against the specification in the last Office action. See attached Examiner's Amendment.

Claim Rejections - 35 USC § 102

4. Upon further reconsideration of applicant's arguments and amendments to the claims, the Examiner is withdrawing the 35 U.S.C 102(a) rejection based upon the Reucher et al article "Spatial Filtering of Noninvasive Multi-electrode EMG Part I – Introduction to Measuring Technique and Applications" (Applicant's prior art), which was made against claims 1, 3, 6, 15, and 17 in the last Office action. In view of applicant's amendments to claims 1 and 15, the Examiner is also withdrawing the 35 U.S.C 102 (b) rejection of Hogrel et al '032 (PCT), which was made against these claims in the last Office action.

Examiner's Amendment

5. The application has been amended as follows:

-Replace the Abstract with the following new Abstract, which is less than 150 words long:

“
ABSTRACT

A method and system for producing higher quality electromyogram (EMG) signals utilizes an array of electrodes for sensing a plurality of EMG signals in an electrically active region of a subject's muscle. A weighting function is applied to the EMG signals to produce weighted signals. This weighting function contains correction features for the relative locations of the center of the electrically active region and the electrodes. The quality of the weighted EMG signals is evaluated, and the weighted signals or sum or mean of the weighted signals whose evaluated quality is insufficient are replaced. A sum or mean of a feature of the weighted signals is calculated to produce a higher quality electromyocardiographic signal. The method and system can also be used to determine signal strength or frequency contents of a signal falling outside the array of electrodes.”

Allowable Subject Matter

6. Claims 1-28 are allowed.

Reasons for Allowance

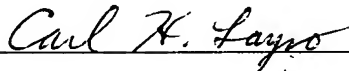
7. The following is an examiner's statement of reasons for allowance:

All of applicant's independent claims specify the use of a “weighting function” comprising EMG correction features for taking into account the relative locations of electrodes in an electrically active region. In contrast, the weighting functions used in prior art references fail to specify this capability. Prior art references, such as Appel et al '395 and DiLorenzo '813 cited herein, describe systems which utilize a plurality of EMG electrodes and weighting functions for processing detected EMG signals (element 176, Fig. 15B of Appel et al and Fig. 12

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of DiLorenzo). However, these references do not specify that the weighting functions are to be used in taking into account relative locations of electrodes, or relative locations with respect to a "center" of a muscle, as claimed by the applicant. Unable to meet applicant's claimed combination of method steps or system details in the prior art, the Examiner deems claims 1-28 to be allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."



CARL LAYNO
PRIMARY EXAMINER

CHL
1/04/2004